

Evaluation of No-Till Soy Herbicide Programs

Arlington, WI 2023

Trial Information

Trial Sponsor(s): FMC, Helm Agro, Syngenta, Valent

Objective: Evaluate multiple 2-pass herbicide programs in a no-till Enlist soybean system

Crop: Soybean

Hybrid: P10A66E

Weed species (pressure): dandelion (moderate-high)

Herbicide Application(s): Pre-Plant – 5/10
POST – 6/19 (V2 soybean)

For the full report see trial #23-ARL-SB04 in the [2023 Wisconsin Weed Science Research Report](#)



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Trt #	Herbicide (rate acre ⁻¹)	Dandelion (%)					Yield ^b bu acre ⁻¹	
		5/19	6/1	6/19	7/6	10/16		
1	Untreated Check	0	0	0	0	0	14 b	
Two-Pass – Pre-Plant (5/10) fb POST (6/19)								
2	Fierce EZ (6 oz) + Roundup PM3 (24 oz) + 2,4-D LV4 (1 pt) + AMS ^c fb Enlist One (2 pt) + Roundup PM3 (30 oz) + Perpetuo (6 oz) + AMS ^c	91	92	88	94	98	66 a	
3	Fierce MTZ (1 pt) + Roundup PM3 (24 oz) + 2,4-D LV4 (1 pt) + AMS ^c fb Enlist One (2 pt) + Roundup PM3 (30 oz) + Perpetuo (6 oz) + AMS ^c	88	87	76	89	96	68 a	
4	Fierce XLT (3.75 oz) + Roundup PM3 (24 oz) + 2,4-D LV4 (1 pt) + AMS ^c fb Enlist One (2 pt) + Roundup PM3 (30 oz) + Perpetuo (6 oz) + AMS ^c	86	87	83	94	98	66 a	
5	Authority Supreme (6.5 oz) + Roundup PM3 (24 oz) + 2,4-D LV4 (1 pt) + AMS ^c fb Enlist One (2 pt) + Liberty (32 oz) + Anthem Maxx (2.5 oz) + AMS (3 lb)	80	81	76	99	77	64 a	
6	Authority Edge (7 oz) + Roundup PM3 (24 oz) + 2,4-D LV4 (1 pt) + AMS ^c fb Enlist One (2 pt) + Liberty (32 oz) + Anthem Maxx (3 oz) + AMS (3 lb)	75	78	64	99	78	63 a	
7	Reviton (1 oz) + Roundup PM3 (20 oz) + Helmet MTZ (2.1 pt) + Destiny HC (1% v/v) + AMS ^c fb Enlist One (2 pt) + Liberty (32 oz) + AMS (3 lb)	99	71	43	97	73	59 a	
8	Reviton (1 oz) + Roundup PM3 (20 oz) + Zone Elite (32 oz) + Destiny HC (1% v/v) + AMS ^c fb Enlist One (2 pt) + Liberty (32 oz) + AMS (3 lb)	100	84	60	98	83	64 a	
9	Reviton (1 oz) + Roundup PM3 (20 oz) + Helmet MTZ (2.1 pt) + 2,4-D LV4 (1 pt) + Destiny HC (1% v/v) + AMS ^c fb Enlist One (2 pt) + Liberty (32 oz) + AMS (3 lb)	99	65	31	99	75	62 a	
10	Tendovo (2.1 qt) + Roundup PM3 (24 oz) + 2,4-D LV4 (1 pt) + AMS ^c fb Enlist One (2 pt) + Roundup PM3 (26 oz) + Dual II Magnum (1.25 pt) + AMS ^c	63	53	80	95	98	59 a	
11	Prefix (2 pt) + Pursuit (3 oz) + Roundup PM3 (24 oz) + 2,4-D LV4 (1 pt) + AMS ^c fb Enlist One (2 pt) + Roundup PM3 (26 oz) + Dual II Magnum (1.5 pt) + AMS ^c	89	89	79	92	94	61 a	
		LSD ($\alpha=0.10$)	4	6	20	4	6	8
		p value	<.001	<.001	<.001	<.001	<.001	<0.001

^aVisual control from 70-100% is illustrated on a color scale with green representing greater weed control values.

^bYield values with the same letter are not significantly different.

^cAMS applied at 8.5 lb/100 gal.

Evaluation of No-Till Soy Herbicide Programs

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Plot pictures taken on 5/19
9 days after the Pre-Plant application

The number in the upper right-hand corner is the
average % dandelion control of 4 replications

9 days after Pre-Plant (5/19)

Untreated Check

0%



9 days after Pre-Plant (5/19)

Pre-Plant: 6 oz Fierce EZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

91%



9 days after Pre-Plant (5/19)

Pre-Plant: 1 pt Fierce MTZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

88%



9 days after Pre-Plant (5/19)

Pre-Plant: 3.75 oz Fierce XLT + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

86%



9 days after Pre-Plant (5/19)

Pre-Plant: 6.5 oz Authority Supreme + 24 oz RU PM3 + 1 pt 2,4-D + AMS

80%



9 days after Pre-Plant (5/19)

Pre-Plant: 7 oz Authority Edge + 24 oz RU PM3 + 1 pt 2,4-D + AMS

75%



9 days after Pre-Plant (5/19)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet + 1% Destiny HC + AMS

99%



9 days after Pre-Plant (5/19)
PP: 1 oz Reviton + 20 oz RU PM3 + 32 oz Zone Elite + 1% Destiny HC + AMS 100%



9 days after Pre-Plant (5/19)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet MTZ + 1 pt 2,4-D + 1% Destiny HC + AMS

99%



9 days after Pre-Plant (5/19)

Pre-Plant: 2.1 qt Tendovo + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

63%



9 days after Pre-Plant (5/19)

Pre-Plant: 2 pt Prefix + 3 oz Pursuit + 24 oz RU PM3 + 1 pt 2,4-D + AMS

89%



Evaluation of No-Till Soy Herbicide Programs

Arlington, WI 2023

Plot pictures taken on 6/1
22 days after the Pre-Plant application

The number in the upper right-hand corner is the
average % dandelion control of 4 replications

22 days after Pre-Plant (6/1)

0%

Untreated Check



22 days after Pre-Plant (6/1)

92%

Pre-Plant: 6 oz Fierce EZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS



22 days after Pre-Plant (6/1)

87%

Pre-Plant: 1 pt Fierce MTZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS



22 days after Pre-Plant (6/1)

Pre-Plant: 3.75 oz Fierce XLT + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

87%



22 days after Pre-Plant (6/1)

81%

Pre-Plant: 6.5 oz Authority Supreme + 24 oz RU PM3 + 1 pt 2,4-D + AMS



22 days after Pre-Plant (6/1)

Pre-Plant: 7 oz Authority Edge + 24 oz RU PM3 + 1 pt 2,4-D + AMS

78%



22 days after Pre-Plant (6/1)
PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet + 1% Destiny HC + AMS 71%



22 days after Pre-Plant (6/1)

PP: 1 oz Reviton + 20 oz RU PM3 + 32 oz Zone Elite + 1% Destiny HC + AMS

84%



22 days after Pre-Plant (6/1)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet MTZ + 1 pt 2,4-D + 1% Destiny HC + AMS

65%



22 days after Pre-Plant (6/1)

Pre-Plant: 2.1 qt Tendovo + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

53%



22 days after Pre-Plant (6/1)

89%

Pre-Plant: 2 pt Prefix + 3 oz Pursuit + 24 oz RU PM3 + 1 pt 2,4-D + AMS



Evaluation of No-Till Soy Herbicide Programs

Arlington, WI 2023

Plot pictures taken on 6/19

40 days after the Pre-Plant application
The day of the POST application

The number in the upper right-hand corner is the
average % dandelion control of 4 replications

40 days after Pre-Plant (6/19)
Untreated Check

0%



40 days after Pre-Plant (6/19)

Pre-Plant: 6 oz Fierce EZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

88%



40 days after Pre-Plant (6/19)

Pre-Plant: 1 pt Fierce MTZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

76%



40 days after Pre-Plant (6/19)

Pre-Plant: 3.75 oz Fierce XLT + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

83%



40 days after Pre-Plant (6/19)

Pre-Plant: 6.5 oz Authority Supreme + 24 oz RU PM3 + 1 pt 2,4-D + AMS

76%



40 days after Pre-Plant (6/19)

Pre-Plant: 7 oz Authority Edge + 24 oz RU PM3 + 1 pt 2,4-D + AMS

64%



40 days after Pre-Plant (6/19)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet + 1% Destiny HC + AMS

43%



40 days after Pre-Plant (6/19)

PP: 1 oz Reviton + 20 oz RU PM3 + 32 oz Zone Elite + 1% Destiny HC + AMS

60%



40 days after Pre-Plant (6/19)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet MTZ + 1 pt 2,4-D + 1% Destiny HC + AMS

31%



40 days after Pre-Plant (6/19)

Pre-Plant: 2.1 qt Tendovo + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS

80%



40 days after Pre-Plant (6/19)

Pre-Plant: 2 pt Prefix + 3 oz Pursuit + 24 oz RU PM3 + 1 pt 2,4-D + AMS

79%



Evaluation of No-Till Soy Herbicide Programs

Arlington, WI 2023

Plot pictures taken on 7/6

57 days after the Pre-Plant application
17 days after the POST application

The number in the upper right-hand corner is the
average % dandelion control of 4 replications

57 days after Pre-Plant (7/6)

0%

Untreated Check



17 days after POST (7/6)

Pre-Plant: 6 oz Fierce EZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

94%

POST: 2 pt Enlist One + 30 oz Roundup PM3 + 6 oz Perpetuo + AMS



17 days after POST (7/6)

Pre-Plant: 1 pt Fierce MTZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

89%

POST: 2 pt Enlist One + 30 oz Roundup PM3 + 6 oz Perpetuo + AMS



17 days after POST (7/6)

Pre-Plant: 3.75 oz Fierce XLT + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

94%

POST: 2 pt Enlist One + 30 oz Roundup PM3 + 6 oz Perpetuo + AMS



17 days after POST (7/6)

Pre-Plant: 6.5 oz Authority Supreme + 24 oz RU PM3 + 1 pt 2,4-D + AMS *fb* 99%

POST: 2 pt Enlist One + 32 oz Liberty + 2.5 oz Anthem Maxx + AMS



17 days after POST (7/6)

Pre-Plant: 7 oz Authority Edge + 24 oz RU PM3 + 1 pt 2,4-D + AMS fb

99%

POST: 2 pt Enlist One + 32 oz Liberty + 3 oz Anthem Maxx + AMS



17 days after POST (7/6)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet + 1% Destiny HC + AMS *fb* 97%

POST: 2 pt Enlist One + 32 oz Liberty + AMS



17 days after POST (7/6)

PP: 1 oz Reviton + 20 oz RU PM3 + 32 oz Zone Elite + 1% Destiny HC + AMS 98%

POST: 2 pt Enlist One + 32 oz Liberty + AMS



17 days after POST (7/6)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet MTZ + 1 pt 2,4-D + 1% Destiny HC + AMS 99%

POST: 2 pt Enlist One + 32 oz Liberty + AMS



17 days after POST (7/6)

Pre-Plant: 2.1 qt Tendovo + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

95%

POST: 2 pt Enlist One + 26 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



17 days after POST (7/6)

Pre-Plant: 2 pt Prefix + 3 oz Pursuit + 24 oz RU PM3 + 1 pt 2,4-D + AMS *fb* 92%

POST: 2 pt Enlist One + 26 oz RU PM3 + 1.5 pt Dual II Magnum + AMS



Evaluation of No-Till Soy Herbicide Programs

Arlington, WI 2023

Plot pictures taken on 10/16
1 week before soybean harvest

The number in the upper right-hand corner is the
average % dandelion control of 4 replications

Soybean Harvest (10/16)

0%

Untreated Check



Soybean Harvest (10/16)

Pre-Plant: 6 oz Fierce EZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

98%

POST: 2 pt Enlist One + 30 oz Roundup PM3 + 6 oz Perpetuo + AMS



Soybean Harvest (10/16)

Pre-Plant: 1 pt Fierce MTZ + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

96%

POST: 2 pt Enlist One + 30 oz Roundup PM3 + 6 oz Perpetuo + AMS



Soybean Harvest (10/16)

Pre-Plant: 3.75 oz Fierce XLT + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

98%

POST: 2 pt Enlist One + 30 oz Roundup PM3 + 6 oz Perpetuo + AMS



Soybean Harvest (10/16)

Pre-Plant: 6.5 oz Authority Supreme + 24 oz RU PM3 + 1 pt 2,4-D + AMS fb 77%

POST: 2 pt Enlist One + 32 oz Liberty + 2.5 oz Anthem Maxx + AMS



Soybean Harvest (10/16)

Pre-Plant: 7 oz Authority Edge + 24 oz RU PM3 + 1 pt 2,4-D + AMS *fb*

78%

POST: 2 pt Enlist One + 32 oz Liberty + 3 oz Anthem Maxx + AMS



Soybean Harvest (10/16)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet + 1% Destiny HC + AMS *fb* 73%

POST: 2 pt Enlist One + 32 oz Liberty + AMS



Soybean Harvest (10/16)

PP: 1 oz Reviton + 20 oz RU PM3 + 32 oz Zone Elite + 1% Destiny HC + AMS 83%

POST: 2 pt Enlist One + 32 oz Liberty + AMS



Soybean Harvest (10/16)

PP: 1 oz Reviton + 20 oz RU PM3 + 2.1 pt Helmet MTZ + 1 pt 2,4-D + 1% Destiny HC + AMS 75%

POST: 2 pt Enlist One + 32 oz Liberty + AMS



Soybean Harvest (10/16)

Pre-Plant: 2.1 qt Tendovo + 24 oz Roundup PM3 + 1 pt 2,4-D + AMS *fb*

98%

POST: 2 pt Enlist One + 26 oz RU PM3 + 1.25 pt Dual II Magnum + AMS



Soybean Harvest (10/16)

Pre-Plant: 2 pt Prefix + 3 oz Pursuit + 24 oz RU PM3 + 1 pt 2,4-D + AMS *fb*

94%

POST: 2 pt Enlist One + 26 oz RU PM3 + 1.5 pt Dual II Magnum + AMS

